

**MILITARY SEALIFT COMMAND**

Understanding Lead Paint

Lead paint exposure can cause health problems. Most know that it is a major source of lead poisoning for children but it can also seriously affect adults. Lead poisoning can cause brain damage as well as result in impaired mental functions. In adults, lead poisoning can cause irritability, poor muscle coordination, nerve damage to the sense organs and nerves controlling the body; it has also been shown to cause problems with reproduction. Adults with high blood pressure have been identified as more vulnerable to the effects of lead.

Lead may be taken in through direct contact with mouth, through inhalation, absorption through eyes (mucous membranes), and through breaks in the skin. There are many options for reducing lead hazards. In most cases, lead-based paint that is in good condition is not a hazard. Deteriorating lead paint can produce dangerous lead levels in dust.

Lead based paint was banned in the 1970's and usually only presents a problem in older ships. There is no way to look at paint and tell whether the paint contains lead. If there is reason to suspect that paint applied to a ship might contain lead, have the paint checked for lead content before removing it. This can be done by obtaining samples of the paint in order to have it analyzed for lead content prior to the onset of full-scale paint removal operations. While collecting these samples, lead poisoning represents a minimal risk. Personnel do not need to wear personal protective equipment during this work. Personnel should refrain from eating, drinking or smoking when collecting samples, and wash their hands at the end of the sampling process. Use a hand trowel, screwdriver, or pocketknife to scrape the material off of the deck, bulkhead, etc. Remove all layers of paint and not just the topcoat when you collect the sample. Each bulk sample should be about the size of a quarter. Place the samples in a small plastic bag, and label the bag to identify frame number of the space, location within the space, and other information to identify where the sample was taken from.

How many samples do you need to collect? Take as many as it takes to "describe" the area that will be worked on. If the painted area looks "homogenous", if it all looks like it has the same amount of paint applied to it, the same color, the same thickness, and the paint is in the same condition, one bulk sample will suffice. If the area looks like a mixture of colors, thickness, etc., then you need to collect one sample for each different area.

Deliver the samples to your industrial hygiene services provider for analysis. If you are in the San Diego area, deliver the samples to the Navy Consolidated Industrial Hygiene Laboratory, Naval Environmental and Preventive Medicine Unit (NEPMU Five) 3235 Albacore Alley, San

**Inside this issue:**

Lead Paint	1
Fatigue at Work	3
Environmental Section	4
Health Section	5
Safety Stats	6
USCG Advisory	8
Namesake	10
Recent Incidents	11
This Date in History	12

Diego CA 92136. Their phone number is (619) 556-7070. If in the Norfolk area, NEPMU two is located at 1887 Powhatan Street, Norfolk VA 23511. Their phone number is 757-953-6600. If you are in a remote location, deliver the samples to the nearest NEPMU. If the material contains lead above 0.01 % by weight, then you have the possibility of lead exposures when you remove the material.

According to OSHA, the permissible exposure limit is 0.05 milligrams per cubic meter (mg/m³), the level at which lead is defined as representing a health risk to personnel. 29 CFR 1926 (Safety & Health regulations) states "The employer shall assure that no employee is exposed to lead at concentrations greater than fifty micrograms per cubic meter of air (50 ug/m³) averaged over an 8-hour period."

29 CFR 1926 also describes an "Action level" which means airborne concentration of lead of 30 micrograms per cubic meter of air (30 ug/m³) averaged over an 8-hour period. If the airborne concentration is above the action level, monitoring must take place. No employee shall be exposed to lead at concentrations greater than 50 micrograms per meter of air (50 ug/m³).

Military Sealift Fleet Support Command (MSFSC) is establishing plans for handling ships which have been identified as having lead paint. In the case of the T-AKE class ships, MSC and MSFSC will work with Naval Sea Systems Command (NAVSEA), Supervisor of Shipbuilding Conversion & Repair (SUPSHIP), National Steel and Shipbuilding Company (NASSCO), and International paint to develop a remediation plan (as per T-AKE Class Notice dated 28 January 2011). CIVMARs shall not accomplish welding, burning, abrasive blasting, sanding, or chipping in way of suspect International Paint 262 dark grey paint. All lead paint related work shall be accomplished by contractors certified to abate lead paint.

Knowing the facts about lead paint exposure will keep you safe. Knowledge is power!



From: Wikipedia.org



From: tugpegasus.org



From USS Kitty Hawk

If you have questions about lead or being exposed to lead, you can call the National Lead Information Center at 1-800-424-5323.

Fatigue at Work

Fatigue is characterized by a reduced efficiency of accomplishment; a state of feeling tired, weary or sleepy that results from insufficient sleep, prolonged mental or physical exertion or extended periods of stress or anxiety. Fatigue can be acute and occur suddenly or be chronic and persist. According to the *Journal of Occupational and Environmental Medicine*, 40 percent of U.S. workers experience fatigue, a problem that costs billions of dollars in lost productivity.

While fatigue is a result of insufficient sleep over a period of time, the effects and repercussions of fatigue in the workplace are often compounded by work conditions, the requirements of specific industries as well as compounding factors. These factors may include poor health and nutrition, stress, or any combination of these factors. People working in a fatigued state, place themselves and others at risk: particularly when operating machinery and/or performing tasks where the consequence of error is serious.

Fatigue in the Maritime Environment *“Traditionally, regulators of transportation industries have used hours of service and manning requirements to address crew fatigue. While these requirements form a critical part of an overall strategy to combat fatigue, they are unable to completely resolve the complex and interrelated factors that influence crew fatigue by themselves. Normal maritime operations expose crew members to a variety of stressors and operational risk factors such as irregular work periods, temperature extremes, heavy workloads, and extended separations from family members. Left unmanaged, these risk factors degrade crew member endurance, and thereby both performance and safety.”* USCG NVIC 02-08

In 2003, the MV JAMBO was grounded when the chief mate fell asleep on watch and missed a critical course change. Unable to control flooding from the grounding the Jambo lost her stability and sank four hours later. The MAIB inspectors concluded that, *“the mate had fallen asleep as a result of very high levels of fatigue, caused by the cumulative effect of an irregular working pattern in which the six-on, six-off watches were compounded by regular port visits.”* MAIB Accident Investigation Report



From: MAIB. MV JAMBO grounded at the entrance of Loch Broom, Scotland.

The Impact of Fatigue has significant consequences that are particularly relevant for the mariner. It is important to understand that the inability to stay awake is a physical reaction to fatigue and not a conscious decision to fall asleep. Consequences of fatigue include: reduced decision making ability, reduced planning capability, reduced communication skills, reduced productivity and performance, reduced attention and vigilance, reduced ability to handle stress, reduced reaction time, forgetfulness, failure to respond to changes from environmental or external stimuli, increased risk-taking, errors in judgment and increased accident rates.

Mitigation of Fatigue The amount of sleep that people need varies, but on average, humans need 7 to 8 hours daily. Use the following guidelines to reduce fatigue. Go to bed and get up at the same time every day. Eat well and exercise regularly. Limit caffeine, tobacco and alcohol intake. Turn off electronics, TV, laptop. Make your sleeping area as dark and quiet as possible. Most importantly, respect the body's need to sleep, rest and recover.

Environmental

Environmental Issues Newsletter

EIN: 229

23 MARCH 2011

MARPOL V – WIDER CARIBBEAN REGION SPECIAL AREA

On 1 May 2011 the discharge requirements in Regulation 5(1) (h) of MARPOL Annex V Regulations for the Prevention of Pollution by Garbage from Ships take effect for the Wider Caribbean Region Special Area.

A Special Area is an area where, for recognized technical reasons in relation to its oceanographic and ecological condition, the adoption of special mandatory methods for the prevention of pollution by garbage is required.

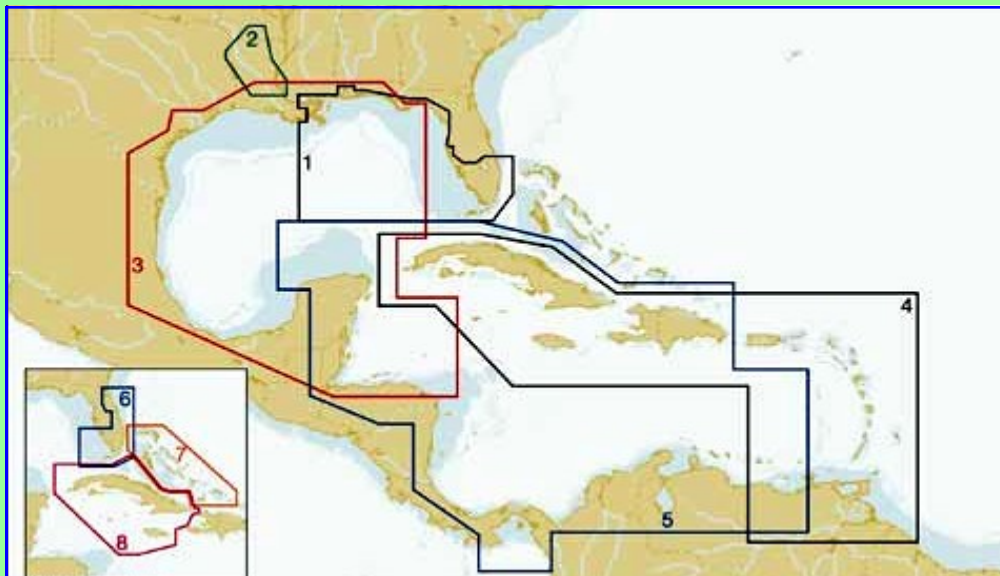
The Wider Caribbean Region means the Gulf of Mexico and Caribbean Sea proper, including the bays and seas therein and that portion of the Atlantic Ocean within the boundary constituted by the 30° N parallel from Florida eastward to 77°30' W meridian, thence a rhumb line to the intersection of 20° N parallel and 59° W meridian, thence a rhumb line to the intersection of 7°20' N parallel and 50° West meridian, thence a rhumb line drawn south westerly to the eastern boundary of French Guiana.

In a Special Area, disposal into the sea of all plastics and all other garbage, including paper products, rags, glass, metal, bottles, crockery, dunnage, lining and packing materials, is prohibited.

Disposal of food waste in a Special Area shall be made as far as practicable from land, but in any case not less than 12 nautical miles from the nearest land.

For further details you may refer to IMO's website www.imo.org.

If you have any questions or comments, please contact Luke Wisniewski, Environmental Engineer, Fleet Standards Branch at 202-685-5771 or luke.g.wisniewski@navy.mil



Protect your Eyes!

Imagine getting up in the morning and not being able to see the beautiful sunrise. Or going into the kitchen and not being able to see the beautiful smile on your children's face. How about not being able to see the latest action movie? All this could be possible if you incur a serious eye injury that leaves you permanently blind.

Eye injuries are very common. In 2008, according to the Bureau of Labor Statistics (BLS), there were 27,450 nonfatal occupational injuries or illnesses involving the eye (or eyes) that resulted in days away from work. Eye injuries generally result from rubbing or abrasion by foreign matter, such as metal chips, dirt particles, and splinters, or by being struck by these types of items causing surface wounds. In 2010, there were 30 documented cases of MSFSC CIVMARs getting debris in the eye, which equated to 7% of the mishaps for the year.

Eye injuries are costly. The pain of an injury or the loss of sight cannot be given a price tag, but eye injuries cost more than \$924 million annually in worker compensation claims with nearly \$4 billion in wage and productivity loss.

How can you prevent getting an eye injury? The BLS reports that nearly 60% of workers injured were not wearing eye protection at the time of injury. Others were wearing inadequate protection. The best way to prevent getting an eye injury is to wear effective eye protection that has been properly fitted.

There are several different types of safety eyewear protection available. Safety glasses with side protection provide minimum protection and are for general working conditions where there may be minor dust, chips or flying particles.

Greater protection can be achieved when using goggles and shields. The greatest protection occurs when goggles are worn with face

shields. Be sure to use the eye protection that is most effective for the job you are doing. MSFSC's guidelines can be found in the Safety Management Procedures manual.

Eye protection devices need to be properly maintained in order to be effective. Scratched and dirty devices can reduce vision, cause glare and lead to accidents. **Brush, shake or vacuum dust and debris from hard hats, hair, the forehead and/or the top of the eye protection before removing the protector!** Also, avoid rubbing eyes with dirty hands or clothing to prevent debris from entering your eye.

And remember, eye protection devices are no good unless they are worn!



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MSFSC Public Health Educator

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Safety Statistics for 1st Quarter FY 2011

The table below displays Class C incidents, first aid cases, and near misses for the first quarter of FY 2011. Our MSC fleet has had zero class A incident, zero class B incidents, 65 first aid cases, and reported 5 near misses during the first quarter of FY 2011. In the first quarter of FY2010 we had 27 Class C incidents so in that category we are off to a much better start. Near miss reporting is down so far for 2011.

We are approaching the months (April, May, and June) which historically have the highest rate of lost time injuries. Many times big projects are started during these months because of the comfortable weather. Please take extra precautions and use operational risk management to help identify hazards. Implement controls which will minimize risk. Use the proper PPE in all work assignments.

Above all, TAKE THE TIME TO BE SAFE!!

Near Miss Incidents: 5

Slips/Trips/Falls-0	Fires - 3	Mat. Damage - 0	Collisions - 1	Spill -0
Equipment failure - 1	Inhale - 0	Contact - 0	Electrical - 0	

First Aid Incidents: 65

Slips/Trips/Falls - 17	Debris in eye - 3	Exertion - 12	Equip Fail - 0
Lifting /Back Injury - 8	Cuts/Knife - 4	Chipping - 4	PMV - 0
Contact - 11	Pulling - 0	Repetition - 1	Electrical - 1
Pinch Points - 3	Burn - 1	Fire -0	Other - 0

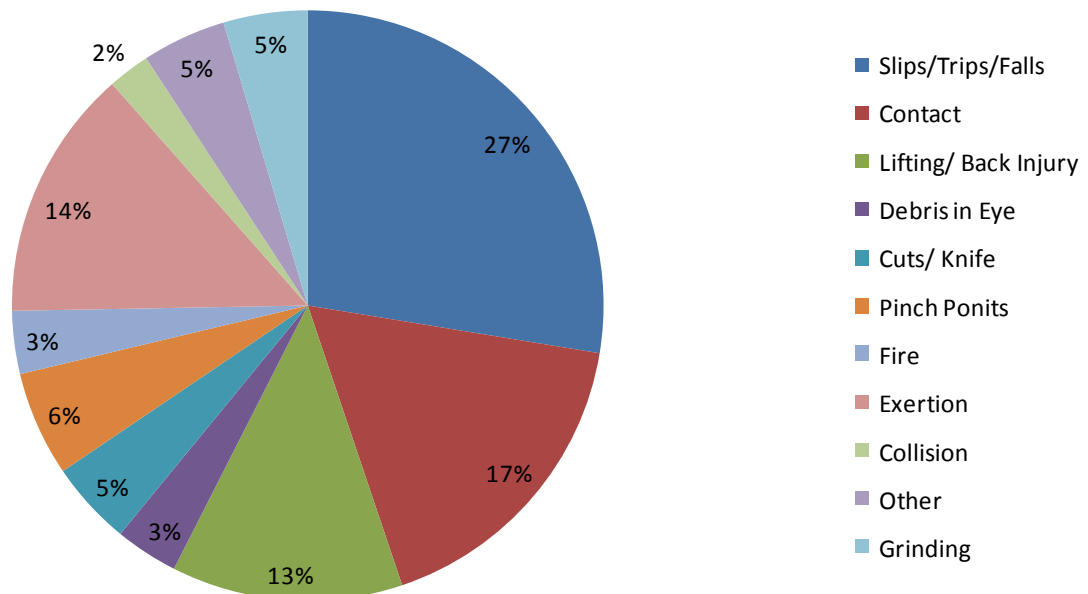
Class C Incidents : 17

Slips/Trips/Falls - 7	Chipping - 0	Burn - 0	Fire - 0	Exertion - 0
Lifting /Back Injury - 3	Collision - 1	PMV - 0	Pinch point - 2	Equip Fail - 0
Contact - 4	Electric - 0	Cut - 0	Debris - 0	

Totals Incidents: 87

Slips/Trips/Falls - 24	Debris in Eye - 3	Exertion - 12	Equip Fail - 1
Lifting /Back Injury - 11	Cuts/Knife - 4	Chipping - 4	PMV - 0
Contact - 15	Pulling - 0	Repetition - 1	Electrical- 1
Pinch Points - 5	Burn - 1	Fire - 3	Other - 0
Collision- 2			

First Quarter FY2011 Class C Mishaps, First Aid Cases, and Near Misses



The above pie chart shows the Class C, Near miss and first aid cases for the first quarter of FY2011. Slips, Trips, and Falls, Contact, and Lifting incidents continue to account for over half of MSC's incidents. The percentage breakdown of incidents into categories is similar to last year categories.

The best ideas for improving safety come from the fleet. Got an idea to help prevent injuries? Please send it to the safety mailbox (MSCHQ_Safety@navy.mil) and we will share it with the fleet.



UNITED STATES COAST GUARD

U.S. Department of Homeland Security

MARINE SAFETY ALERT

Assistant Commandant for Marine Safety, Security and Stewardship

January 31, 2011 Alert 01-11

Washington, DC

INSPECTION OF FUEL OIL QUICK-CLOSING VALVES

U.S. Coast Guard Port State Control Officers (PSCOs) are discovering Fuel Oil Quick-Closing Valves (QCVs) intentionally blocked, modified, and poorly maintained preventing them from operating as designed during an emergency.

QCVs are positive shutoff valves on fuel oil systems serving to isolate fuel tanks in the event of a fire and also prevent “fueling” of a fire in circumstances where system piping and components are compromised. In some circumstances they could be the only means of securing the fuel to a flammable liquid fire. These valves are designed to be remotely operated. Inoperable QCVs create a very serious hazardous condition putting the vessel and its crew at greater risk in the event of a fire. Blocking or disabling these valves is unacceptable under any circumstance. It is absolutely critical that they operate correctly, are maintained, and ready for use at all times. Proper routine maintenance, and in some cases approved modifications and / or replacement of components may be necessary to ensure reliability of the remote operator and closure of the valve.

Owners /operators, vessel engineers, PSCOs, Class society and other machinery space inspection personnel must fully understand the critical nature and importance of QCVs and associated systems. Crewmember knowledge of testing, operation, maintenance and repair, in addition to related documentation and required spare parts are essential elements to evaluate during an inspection. International regulations require that positive shutoff valves located outside the fuel tank be capable of being closed from a safe position from outside the space concerned.

The U.S. Coast Guard **strongly recommends** that owners /operators, vessel engineers, PSCOs, Class society and other machinery space inspection personnel ensure:

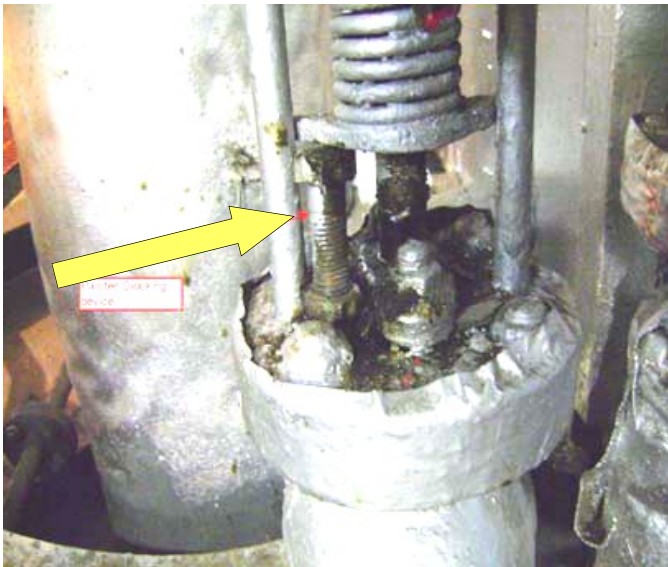
- a) The QCV operating system is capable of remotely closing all valves as designed; some systems close valves sequentially and others simultaneously.
- b) There is a maintenance plan in place including technical manuals containing diagrams and information that describe the system components, required spare parts, operation, maintenance and repair.
- c) That all engine department personnel can identify the location of each valve, the respective remote closure and how to close them locally and remotely in an emergency.

Note: During Coast Guard PSC Exams, vessel engineers should be able to explain maintenance requirements of the system, and provide operational test and maintenance records. Engineers should be able to describe

how to test the valves, reset them after closure, and understand their operational importance. Vessels with inoperable QCVs may be subject to an operational control.

This safety alert is provided for informational purposes only and does not relieve any domestic or international safety, operational or material requirement. Developed by the Office of Foreign and Offshore Vessel Compliance Division (CG-5432), United States Coast Guard Headquarters, Washington, DC.

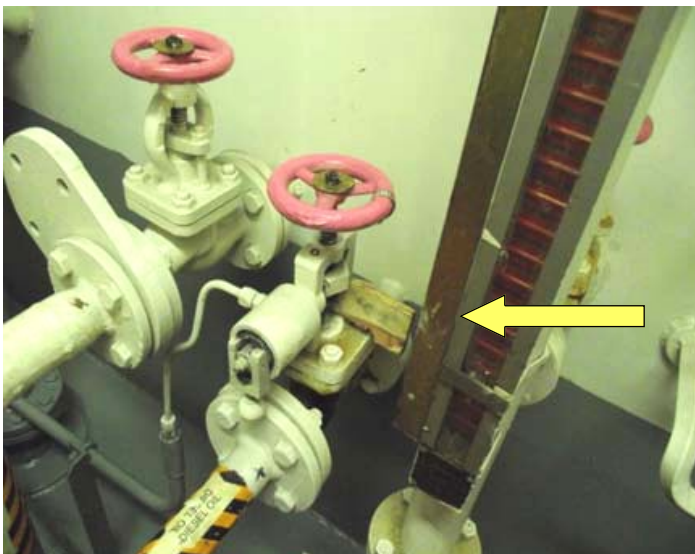
Examples of QCVs held in the open position:



QCV blocked utilizing a bolt to hold in the open position.

(Note: the painted portion on the bolt indicating possible long term condition.)

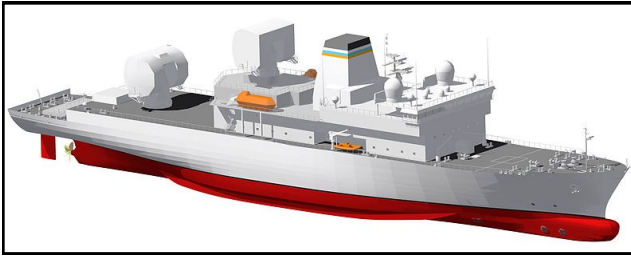
QCV blocked utilizing wire to hold closing weight up and the valve in the open position.



QCV blocked utilizing a wooden block to hold the valve in the open position.

Photos are courtesy of U.S. Coast Guard Sector New Orleans

Namesake Section



T-AGM 25 USNS HOWARD O. LORENZEN is named in honor of the electrical engineer, Howard Lorenzen. Known as the “Father of Electronic Warfare”, Lorenzen spent the majority of his career at the Naval Research Laboratory in Washington D.C. He is known for his accomplishments in developments in radar, electronic countermeasure systems, and intelligence satellite

designs. In the latter part of his career, he led the Naval Research Laboratory’s Galactic Radiation and Background program, which became the earliest successful U.S. reconnaissance satellite program and the first electronic intelligence satellite. The USNS *Howard O. Lorenzen* is being built at Halter Marine and is 12,575 tons, is 534 feet in length, and has a beam of 89 feet.



T-AKE-9 USNS MATTHEW PERRY is named in honor of the illustrious naval commodore, Matthew Perry. Known as the “Father of the Steam Navy”, Perry played a pivotal role in opening trade with Japan in the early 1850s. He served on a variety of naval vessels and led troops into battle during the Siege of Veracruz in the Mexican-American War. Through his use of gun-

boat diplomacy, Perry’s crowning achievement was the negotiation with the Japanese to open trade with the West, ushering in an era of cooperation between Japan and the United States. The USNS Matthew Perry is 35,400 long tons, 689 feet in length, and 106 feet in beam.



USS EMORY SCOTT LAND is named in honor of Emory Land who graduated from the U.S. Naval Academy on May 21, 1902. After leaving the Academy, he became a Naval architect specializing in submarine construction. During World War I, Vice Admiral Land was assigned for duty with the Board of Devices and Plans Connected with Submarines in Warfare in May 1917. He was awarded the Navy Cross for his work on submarine design and construction and for work in the war zone. As Chief of the Bureau of Construction and Repair from 1932 to 1937, he supervised the design and development of submarines that formed the backbone of the U. S. Submarine Fleet in World

War II. On October 1, 1932, Rear Admiral Land was designated Chief of the Bureau of Construction and Repair, and remained there until he retired from active duty April 1, 1937. Within a month, he was appointed to the newly created U.S. Maritime Commission, tasked with rehabilitating the Nation's rapidly declining merchant fleet. On February 18, 1938, he became Chairman of the Commission, relieving Joseph P. Kennedy. On February 9, 1942, following the outbreak of WW II, he was also assigned as Administrator of the War Shipping Administration. He served in the dual capacity until the ending of hostilities. During the War, he directed the design, establishment and maintenance of a 6000 vessel merchant fleet, the greatest maritime fleet in the history of the world. He was advanced to Vice Admiral in 1944 and resigned as chairman of the Maritime Commission in 1946.

Recent Incidents



A signalman gave an unclear signal to a crane operator. The crane operator performed the wrong

movement causing a spreader bar to part.

Causal Factors – unclear signaling

Lessons Learned – Crane signals must be clear; and if the signal is not clear, the crane operator must ask for clarification.



CIVMAR adjusted his goggles while grinding. When he adjusted the goggles a

paint chip fell in his eye.

Causal Factors – adjusting goggles while paint chips are in mariner's hair and around goggles

Lessons Learned – During grinding almost half the debris in eyes occurs when a mariner removes his/her Personal Protective Equipment (PPE). Be sure to brush all paint chips from your hair and face prior to removing or adjusting goggles.



CIVMAR was walking down a ladder with laundry when he slipped and fell down four steps.

Causal Factors – slipping on stairs without holding a railing

Lessons Learned – Transiting stairs with your hands full is dangerous. If possible use an elevator if your hands are full. If an elevator is not possible consider making multiple trips in order to free-up a hand.



CIVMARs were moving a full 55 gallon drum which was located on an elevated

pallet. CIVMARs decide to tip the drum to a horizontal position and rolling the barrel to the lower level. The CIVMARs lost control of the drum which made contact with a CIVMARs leg.

Causal Factors – lack of control during move of a 55 gallon drum

Lessons Learned – Forklifts were available for the job but would have taken time. CIVMARs should have taken the time to use the proper equipment.



While a CIVMAR was handling lines for departure his foot got caught in a

line causing him to fall.

Causal Factors – tripping over mooring lines

Lessons Learned – While handling lines, keep your feet clear of tripping hazards. It may be necessary to slow down an operation to prevent a mooring line from piling up near your feet.



CIVMAR was wearing safety glasses and a face shield while grinding and cutting metal. A small

piece of the metal flew in his eye.

Causal Factors – improper PPE

Lessons Learned – Tight fitting goggles should be worn while grinding. Safety glasses do not provide enough protection.



Readiness Through Safety !

This Date in History

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28 April 1789 - **HMS BOUNTY** was a British Royal Navy ship and has been commemorated by several books, films, and popular songs, which tell the story of the “mutiny on the BOUNTY”. The mutiny was led by Fletcher Christian against the commanding officer, William Bligh. According to most accounts, the sailors were attracted to the idyllic life on the Pacific island of Tahiti and repelled by the alleged cruelty of their captain. Eighteen mutineers set Captain Bligh and most of those loyal to him afloat in a small boat. The mutineers then settled, some in Tahiti in 1789, others on Pitcairn Island, with Tahitians they had befriended. The *Bounty* was subsequently burned to avoid detection and to prevent desertion. Descendants of some of the mutineers and Tahitians still live on Pitcairn. After Bligh and his crew of 18 made an epic and eventful journey in the small boat to Timor in the Dutch East Indies, he returned to England and reported the mutiny.

09 May 1980 – **SUMMIT VENTURE** was involved in a fatal collision with a the Sunshine 3 Skyway Bridge in Tampa Bay, Florida. While negotiating a required turn in the narrow channel during a storm, the radar failed, and the freighter struck one of the pillars on the southbound span. 1,400 feet of the steel cantilever highway bridge collapsed, causing a Greyhound Lines bus, among other vehicles, to plunge 165 feet into the bay. A total of 35 people died. The pilot of the SUMMIT VENTURE was cleared of wrongdoing by both a state grand jury and a Coast Guard investigation. After having her hull repaired, the SUMMIT VENTURE continued service under Liberian flag for another 13 years. The ship was sold to Greek interests in 1993, and rechristened SAILOR 1, predominantly plying the waters off the west coast of the U.S. In 2004, the ship again traded hands and was sold to a Singapore firm. It was renamed the KS HARMONY.

21 May 1996 – **MV BUKOBA** was a passenger steamer that sunk in Lake Victoria, 30 miles from Mwanza, Tanzania. The ship was transporting passengers and cargo from the ports of Bukoba and Mwanza. It is believed the vessel capsized because it was over-loaded. Nearly 1000 people died in the accident. The high death toll is partially attributable to the lack of rescue divers and equipment. Rescue teams from South Africa were flown in to salvage the ship and retrieve bodies that sank 25 meters under water. Among the deceased was Al-Qaeda terrorist Abu Ubaidah al-Banshiri, second in command only behind Osama Bin Laden.